

Appl. No. 10/648,429
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Attorney Docket No. 81872.0050
Customer No.: 26021

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for producing a solar cell comprising:
placing a substrate for a solar cell on an RF electrode in a chamber;

placing a plate to cover the substrate, the plate being provided with a number of opening portions in a central region thereof and a number of opening portions in a peripheral region surrounding the central region thereof, an open area ratio of the opening portions in the peripheral region being smaller than an open area ratio of the opening portions in the central region; and

forming fine textures on a surface of the substrate by using residues being chiefly composed of comprising components of the substrate as an etching mask as an etching mask.

2. (Previously presented) The method for producing a solar cell according to Claim 1, wherein:

the plate is placed to be spaced apart from the surface of the substrate by 5 to 30 mm.

3. (Previously presented) The method for producing a solar cell according to Claim 1, wherein:

the substrate is a plate or a film member made of one material selected from silicon, glass, metal, plastic, and resin.

4. (Previously presented) The method for producing a solar cell according to Claim 1, wherein:

the fine textures are fabricated by a reactive ion etching method.

5-7. (Canceled)

8. (Currently amended) A method for producing a solar cell comprising: placing a substrate for a solar cell on an RF electrode in a chamber; placing a plate to cover the substrate while securing a distance from the surface of said substrate, the plate being provided with a number of opening portions, each opening portion being of a size such that allows a virtual column having a diameter equal to or less than half (1/2) the distance to pass through the opening portion while inhibiting a virtual column having a diameter greater than half the distance from passing through the opening portion; and

forming fine textures on a surface of the substrate by using residues being chiefly composed of comprising components of the substrate as an etching mask as an etching mask.

9. (Previously presented) The method for producing a solar cell according to Claim 8, wherein:

the plate is placed to be spaced apart from the surface of the substrate by 5 to 30 mm.

10. (Previously presented) The method for producing a solar cell according to Claim 8, wherein:

the fine textures are fabricated by a reactive ion etching method.

11-14. (Canceled)

15. (Currently amended) A method for producing a solar cell comprising:
placing a substrate for a solar cell on an RF electrode in a chamber;
placing a plate to cover the substrate, said plate being provided with a
number of opening portions, chamfered portions being provided to the top and
bottom corners ~~or to the bottom corners~~ of the opening portions;
forming fine textures on a surface of the substrate by using residues being
chiefly composed of comprising components of the substrate as an etching mask ~~as~~
~~an etching mask.~~

16-20. (Canceled)

21. (Previously presented) A method for producing a solar cell comprising:
placing a substrate for a solar cell on an RF electrode in a chamber;
placing a plate to cover the substrate, the plate being provided with a number
of opening portions in a central region thereof and a number of opening portions in
a peripheral region surrounding the central region thereof, an open area ratio of the
opening portions in the peripheral region being smaller than an open area ratio of
the opening portions in the central region;
wherein a number of residues are formed by an etching of the substrate
during an RF power applying, wherein the residues are trapped in a space between
the substrate and the plate.

22. (Previously presented) The method for producing a solar cell according
to claim 21, wherein:
the plate is placed to be spaced apart from the surface of the substrate by 5 to
30 mm.

23. (Previously presented) The method for producing a solar cell according to claim 21, wherein:

the substrate is a plate or a film member made of one material selected from silicon, glass, metal, plastic and resin.

24. (Previously presented) The method for producing a solar cell according to claim 21, wherein

the fine textures are fabricated by a reactive ion etching method.

25. (Previously presented) A method for producing a solar cell comprising: placing a substrate for a solar cell on an RF electrode in a chamber; placing a plate to cover the substrate, the plate being provided with a number of opening portions in a central region thereof and a number of opening portions in a peripheral region surrounding the central region thereof, an open area ratio of the opening portions in the peripheral region being smaller than an open area ratio of the opening portions in the central region;

wherein a number of residues are formed by an etching of the substrate during an RF power applying, wherein the residues are attached to the surface of the substrate.

26. (Previously presented) The method for producing a solar cell according to claim 25, wherein

the plate is placed to be spaced apart from the surface of the substrate by 5 to 30 mm.

27. (Previously presented) The method for producing a solar cell according to claim 25, wherein

the substrate is a plate or a film member made of one material selected from silicon, glass, metal, plastic and resin.

28. (Previously presented) The method for producing a solar cell according to claim 1, comprising introducing a gas in the chamber; and
applying an RF power supply to said RF electrode.

29. (Previously presented) The method for producing a solar cell according to claim 28, wherein

the fine textures are fabricated by a reactive ion etching method.

30. (Previously presented) The method for producing a solar cell according to claim 8, comprising introducing a gas in the chamber; and
applying an RF power supply to said RF electrode.

31. (Previously presented) The method for producing a solar cell according to claim 15, comprising

introducing a gas in the chamber; and
applying an RF power supply to said RF electrode.

32. (Previously presented) The method for producing a solar cell according to claim 1, wherein the central region of the plate is opposed to a central region of the substrate, and the peripheral region of the plate is opposed to a peripheral region of the substrate.